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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,276	08/05/2003	Andreas Fath	071308.0463	7127
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BAKER BOTTS L.L.P. PATENT DEPARTMENT 98 SAN JACINTO BLVD., SUITE 1500 AUSTIN, TX 78701-4039				
EXAMINER				
KIM, CHRISTOPHER S				
ART UNIT		PAPER NUMBER		
3752				
MAIL DATE		DELIVERY MODE		
03/25/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/634,276

Applicant(s)

FATH ET AL.

Examiner

Christopher S. Kim

Art Unit

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 1/16/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The reply filed January 16, 2008 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 1, 3, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pataki et al. (5,899,389).

Pataki discloses a fuel injection valve comprising:

a nozzle body 108 having a nozzle body seat (seating surface for needle 104); and

a nozzle needle 104 incorporating a nozzle shaft (portion of needle 104 with diameter d1) and a nozzle needle seat (conical tip of needle 104), wherein the nozzle needle seat (conical tip of needle 104) comprises a sealing edge (downstream edge of surface 116) provided between an outer surface of a conical nozzle needle tip and a frusto-conical body section 116 of the nozzle needle;

a gap (gap between the body 108 and needle 104 in the section of the needle between surfaces 114 and 116)

4. Claims 6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ushimura (4,470,548).

Ushimura discloses a fuel injection valve comprising: a nozzle body 14; a nozzle needle 12; conical nozzle needle tip 40; frusto-conical body section 36.

In claim 6, the recitation "such that the gap is operable to hydraulically dampen movement of the nozzle needle seat toward the nozzle body seat" merely requires the ability/capability to operate in such a manner. The device of Ushimura has the capability to operate in such a manner because the gap of Ushimura traps/contains part of the fuel flow.

5. Claims 6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Holzgrefe (4,982,901).

Holzgrefe discloses a fuel injection valve comprising: a nozzle body 15; a nozzle needle 6; conical nozzle needle tip 21, 23; frusto-conical body section 20.

In claim 6, the recitation "such that the gap is operable to hydraulically dampen movement of the nozzle needle seat toward the nozzle body seat" merely requires the ability/capability to operate in such a manner. The device of Holzgrefe has the capability to operate in such a manner because the gap of Holzgrefe traps/contains part of the fuel flow.

6. Claims 6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Holzgrefe et al. (5,012,981).

Holzgrefe discloses a fuel injection valve comprising: a nozzle body 15; a nozzle needle 6; conical nozzle needle tip 21, 23; frusto-conical body section 20.

In claim 6, the recitation "such that the gap is operable to hydraulically dampen movement of the nozzle needle seat toward the nozzle body seat" merely requires the

ability/capability to operate in such a manner. The device of Holzgreffe has the capability to operate in such a manner because the gap of Holzgreffe traps/contains part of the fuel flow.

Response to Arguments

7. Applicant's arguments filed September 20, 2007 have been fully considered but they are not persuasive.

Applicant argues that "directly adjacent" defines a structure having no intervening structure between the conical nozzle tip and the frusto-conical body section. Claim 1 has been interpreted as such. Claim 1 is only readable on the species shown in figure 4 and is not generic.

Applicant argues that Pataki does not teach a conical nozzle tip directly adjacent to the frusto-conical body section. Pataki shows, in figure 4A, a conical nozzle tip (the portion of valve element 104 that is in contact with the valve seat of housing 108) directly adjacent to the frusto-conical body section (pressure surface 116). The sealing edges is the point at which the two surfaces meet. There is no intervening structure between Pataki's conical nozzle tip and the frusto-conical body section.

Regarding applicant's argument directed to the function language "configured to hydraulically dampen movement of the nozzle needle seat," the functional recitation merely requires the ability to perform. The prior art need not explicitly disclose that the prior art in fact performs the function. The prior art discloses the structural limitation of claim 6 and therefore is capable of performing the functional recitation. While features

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of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. MPEP 2114.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Christopher S. Kim/
Primary Examiner, Art Unit 3752

CK